PRE-APPEAL BRIEF REQUEST FOR REVIEW	Docket Number (Optional) 112025-0488	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on **December 19, 2006** Signature Typed or printed name **Elaine Cruz**	Application Number 10/087,376	Filed **March 1, 2002**
	First Named Inventor John B. Duffie III et al.	
	Art Unit 2151	Examiner DAFTUAR, SAKET K.

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
     Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

☒ attorney or agent of record.
Registration number   51,477

☐ attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34 _____

_____
Signature

James A. Blanchette
Typed or printed name

617-951-2500
Telephone number

December 19, 2006
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☐ *Total of _____ forms are submitted.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re The Application of:)
    John B. Duffie III et al.   )
)
Serial No.: 10/087,376   )   Examiner: Daftuar, Saket K.
)
Filed: March 1, 2002   )
)   Art Unit: 2151
For: METHOD TO OPTIMIZE THE   )
      LOAD BALANCING OF PAR-   )
      ALLEL CO-PROCESSORS   )
)

Cesari and McKenna, LLP
88 Black Falcon Avenue
Boston, MA 02210
December 19, 2006

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

PRE-APPEAL BRIEF

In connection with a Notice of Appeal and a Pre-Appeal Request for Review, the Applicant submits this Pre-Appeal Brief. The Applicant respectfully urges that the prior Office Actions present no motivation or evidentiary basis to support combination of the cited references, and even if such references are combined, they do not teach or suggest every element of the Applicant's claims.

A. THERE IS NO MOTIVATION OR EVIDENTIARY BASIS TO SUPPORT COMBINATION OF THE REFERENCES

The Applicant respectfully urges that a prima facie case of obviousness has not been established to support rejection of the Applicant's claims, as no motivation or evidentiary basis to combine the references has been provided.

MPEP §2143, entitled "Basic Requirements of a Prima Facie Case of Obviousness" requires:

> there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings.

The MPEP goes on to state that "[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." *See* MPEP 2143.01 (III). Some rationale must be expressly or impliedly contained in the prior art, or reasoned from knowledge generally available to one of ordinary skill in the art. *See* MPEP §2144.

Neither the Final Office Action dated Nov. 20, 2006, nor the Advisory Action dated Dec. 5, 2006, cite to any expressed or implied suggestion or motivation in the references themselves. Further, neither the Office Action dated Nov. 20, 2006, nor the Advisory Action dated Dec. 5, 2006, present a reasoned argument why there is some suggestion or motivation in the knowledge of one of ordinary skill in the art. Instead, all that is presented is the conclusory statement:

> Therefore, it would have bee [sic] obvious to one ordinary skilled in the art at the time the invention was made to securely controlled [sic] dynamically [sic] switching and distributing packets to the server based on their packet size and the cost associated with the packets.

see Office Action date Nov. 20, 2006, page 3-4, 6, and 9. The MPEP clearly requires more than just a bare assertion that a combination is obvious.

2

In contrast, there is persuasive evidence in the references that motivates <u>against</u> combination. Below is a brief summary of the relevant portions of the references, and a discussion why they discourage combination.

Modi et al., U. S. Patent No. 6,587,866 (hereinafter Modi) discloses a load balancing scheme for distributing packets among a plurality of server nodes in a clustered processing system. *See* col. 3, lines 18-22 and col. 7, lines 61-64. The scheme includes "non-affinity" policy types where packets are distributed to any server node, and "affinity" policy types where packets from a single client are sent to the same server node. *See* col. 7, lines 61 to col. 8, lines 2 and col. 2, lines 42-47. In both policy types, a source address (i.e. a client IP address) in a received packet is hashed over entries associated with nodes in a packet distribution table (PDT), to determine which node should process the packet. *See* col. 10, lines 32-33 and col. 14, lines 59-67.

Walker et al., U.S. Patent No. 5,613,069 (hereinafter Walker) discloses routing techniques for large packet switching networks, and provides an analysis of "average transmission delay" that includes formulas mentioning "average packet size," abbreviated b_{av}. *See* abstract and col. 18, lines 7-67.

If Modi were somehow modified to look to "packet size," rather than "IP address," Modi would be rendered unsatisfactory for its intended purpose, in violation of MPEP §2143.01. MPEP §2143.01 states "[i]f proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." An important purpose of Modi is to provide the ability to support "client affinity" policy types. Such purpose is expressed throughout the reference, including in the title, which reads "Method for Distributing Packets to Server Nodes Using Network *Client Affinity* and Packet Distribution Table" (emphasis added). If one were to somehow substitute "packet size" for "IP address" in Modi's technique, Modi would likely no longer be able to implement client affinity, and thus would be unsuitable for one of its primary intended purposes.

3

Thus, in summary, the Applicant respectfully urges that a prima facie case of obviousness has not been established to support rejection of the Applicant's claims, as there is no suggestion or motivation to combine the references.

B. THE REFERENCES, EVEN IF COMBINED, DO NOT TEACH OR SUGGEST ALL ELEMENTS OF THE CLAIMS.

The Applicant respectfully urges that a prima facie case of obviousness has not been established to support rejection of the Applicant's claims, as the references do not teach or suggest several elements of the Applicant's claims.

MPEP 2143 states that a prima facie case of obviousness must be based upon references that "teach or suggest all the claim limitations." Even if one were to combine Modi and Walker, this standard is not met.

The Applicant's claim 1, representative in part of many of the other rejected in claims, sets forth (emphasis added):

> 1. A method for selecting a coprocessor from a plurality of coprocessors to process a packet, the method comprising the steps of:
> determining a size of the packet;
> ***determining a cost associated with the packet in response to the size of the packet,*** the cost representing a load associated with processing the packet;
> ***determining an anticipated load for each coprocessor in the plurality of coprocessors using the cost; and***
> ***selecting the coprocessor from the plurality of coprocessors based on the anticipated load.***

Even if Walker is combined with Modi, there is still no suggestion of the Applicant claimed "*determining a cost associated with the packet in response to the size of the packet*" and "*determining an anticipated load for each coprocessor in the plurality of coprocessors using the cost*" and "*selecting the coprocessor from the plurality of coprocessors based on the anticipated load.*"

Rather than "*determining an anticipated load for each coprocessor in the plurality of coprocessors using the cost,*" Modi assigns nodes relative weights, and does not

4

endeavor to determine an actual anticipated load at a node. *See* Modi col. 8, lines 21-25 and col. 9, lines 46-52. Also, rather than *"selecting the coprocessor from the plurality of coprocessors based on the anticipated load,"* Modi selects nodes based upon the node weights and packet IP addresses. *See* col. 10, lines 32-33 and col. 14, lines 59-67. Indeed, as described in detail in the Amendment filed Nov. 20, 2006, Modi functions in a manner similar to the prior art systems described in the Application's Background Section, and suffers many of the shortcomings described therein.
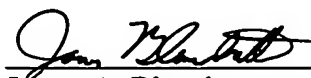
Combination with Walker does not remedy the deficiencies of Modi. While Walker does mention "packet size," it provides little other teaching relevant to the Applicant's claims. Walker discusses using average packet size to calculate transmission delay across a large packet switch network. Walker makes no mention of using packet size as part of a technique to calculate an anticipated load at a particular coprocessor, nor of using anticipated load to select a coprocessor.

Accordingly, the Applicant respectfully urges that Modi and Walker are legally insufficient to make obvious the present claims under 35 U.S.C. §103.

Further, even if the independent claims are not deemed allowable, as discussed in the Applicant's Amendment of Nov. 20, 2006, the dependent claims are believed to be allowable for additional reasons as discussed in the Applicant's Amendment of Nov. 20, 2006.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,

James A. Blanchette
Reg. No. 51,477
CESARI AND MCKENNA, LLP
88 Black Falcon Avenue
Boston, MA 02210-2414
(617) 951-2500